

IN THE CLAIMS:

21. (Canceled)

1        22. (Currently Amended)     A furnace comprising:  
2        a housing forming an enclosure;  
3        a heating means for heating the enclosure;  
4        an opening formed in the housing; and  
5        a vertical rotating means disposed in the enclosure ~~The furnace as~~  
6 ~~claimed in claim 21~~, wherein the vertical rotating means comprise a pair of  
7 rotating chains carrying a plurality of trays at respective tray apexes and a pair  
8 of fixed rings carrying the plurality of trays at respective tray bases.

1        23. (Previously Presented)     The furnace as claimed in claim 22,  
2 wherein the pair of rotating chains and the pair of fixed rings have geometric  
3 centers vertically offset from each other.

1        24. (Previously Presented)     The furnace as claimed in claim 22,  
2 wherein the plurality of trays are attached to the pair of rotating chains and the  
3 pair of fixed rings by a four bar linkage.

1        25. (Previously Presented)     The furnace as claimed in claim 22,  
2 wherein the plurality of trays are alternatively accessible through the opening.

1        26. (Previously Presented)     The furnace as claimed in claim 22,  
2 wherein the pair of rotating chains are disposed in a top portion of the enclosure  
3 and the pair of fixed rings are disposed in the bottom portion of the enclosure.

1        27. (Previously Presented)     The furnace as claimed in claim 22,  
2 wherein the pair of rotating chains and the pair of fixed rings are circular.

1           28.   (Previously Presented)   The furnace as claimed in claim 22,  
2   wherein the pair of rotating chains and the pair of fixed rings are elliptical.

1           29.   (Previously Presented)   The furnace as claimed in claim 22,  
2   wherein the pair of rotating chains and the pair of fixed rings have an irregular  
3   shape.

1           30.   (Previously Presented)   The furnace as claimed in claim 22,  
2   wherein the tray bases are maintained in a horizontal orientation by the pair of  
3   fixed rings.

1           31.   (Currently Amended)    The furnace as claimed in claim 22  
2   [[21]], wherein the vertical rotating means comprises a motor.

1           32.   (Currently Amended)    The furnace as claimed in claim 22  
2   [[21]], further comprising a heat exchanger.

1           33.   (Currently Amended)    The furnace as claimed in claim 22  
2   [[21]], further comprising a flux pot.

1           34.   (Currently Amended)    The furnace as claimed in claim 22  
2   [[21]], further comprising a wave soldering unit.

1           35.   (Currently Amended)    The furnace as claimed in claim 22  
2   [[21]], wherein the vertical rotating means comprise a pair of rotating rings  
3   carrying a plurality of trays at respective tray apexes and a pair of fixed rings  
4   carrying the plurality of trays at respective tray bases.

1           36.   (Previously Presented)   The furnace as claimed in claim 35,  
2   wherein the pair of rotating rings and the pair of fixed rings have geometric  
3   centers vertically offset from each other.

1           37.   (Previously Presented)   The furnace as claimed in claim 35,  
2   wherein the plurality of trays are attached to the pair of rotating rings and the  
3   pair of fixed rings by a four bar linkage.

1           38.   (Previously Presented)   The furnace as claimed in claim 35,  
2   wherein the pair of rotating rings are disposed in a top portion of the enclosure  
3   and the pair of fixed rings are disposed in the bottom portion of the enclosure.

1           39.   (Previously Presented)   A furnace comprising:  
2               a housing forming an enclosure;  
3               an opening formed in the housing; and  
4               a pair of rotating chains carrying a plurality of trays at respective  
5   tray apexes and a pair of fixed rings carrying the plurality of trays at respective  
6   tray bases, the pair of rotating chains and the pair of fixed rings being disposed  
7   in the enclosure.

1           40.   (Previously Presented)   The furnace as claimed in claim 39,  
2   wherein the fixed rings comprise a web-type frame.

1           41.   (Previously Presented)   The furnace as claimed in claim 39,  
2   further comprising a heating means for heating the enclosure.

1           42.   (Previously Presented)   The furnace as claimed in claim 39,  
2   further comprising a flux pot.

1           43.   (Previously Presented)   The furnace as claimed in claim 39,  
2 further comprising a wave soldering unit.

1           44.   (Previously Presented)   A furnace comprising:  
2               a housing forming an enclosure;  
3               an opening formed in the housing; and  
4               a pair of rotating rings carrying a plurality of trays at respective tray  
5 apexes and a pair of fixed rings carrying the plurality of trays at respective tray  
6 bases, the pair of rotating rings and the pair of fixed rings being disposed in the  
7 enclosure.

1           45.   (Previously Presented)   The furnace as claimed in claim 44,  
2 wherein the fixed rings comprise a web-type frame.

1           46.   (Previously Presented)   The furnace as claimed in claim 44,  
2 further comprising a heating means for heating the enclosure.

1           47.   (Previously Presented)   The furnace as claimed in claim 44,  
2 further comprising a flux pot.

1           48.   (Previously Presented)   The furnace as claimed in claim 44,  
2 further comprising a wave soldering unit.

1           49.   (Currently Amended)    A method of carrying out a processing  
2 step on an item to be processed comprising the steps of:  
3               providing a furnace having a housing forming an enclosure, an  
4 opening formed in the housing, a heating means for heating the enclosure, and  
5 a vertical rotating means disposed in the enclosure, the vertical rotating means  
6 comprising a pair of rotating chains carrying a plurality of trays at respective tray

- 7 apexes and a pair of fixed rings carrying the plurality of trays at respective tray
- 8 bases; and
- 9 rotating the item to be processed within the enclosure.